IN THE CLAIMS

1.   (Newly Amended) A method of using a user equipment (UE) in a wireless time division duplex communication system using code division multiple access, where the system communicates using communication bursts, each communication burst having a unique channelization code and a midamble code which is uniquely related to the channelization code, each such midamble code being uniquely related to one or more channelization codes ~~code~~, the method comprising:

receiving communication bursts by the UE;

detecting each midamble code in a received communication burst;

determining the channelization codes related to each detected midamble based on a mapping of midamble codes to related channelization codes;

detecting channelization codes in the received communication burst from among the determined channelization codes; and

recovering data from the received communication burst based on in part the detected channelization codes.

2.   (Original) The method of claim 1 wherein channelization code detection comprises match filtering the received burst for each determined channelization code to produce a filtered signal corresponding to each determined channelization code, measuring the power of each filtered signal produced and comparing the power measurements.

3.   (Original) The method of claim 2 wherein the channelization code detection compares the power measurements to a predetermined threshold whereby a determined channelization code is detected if the power measurement of the

filtered signal associated with matched filtering for that determined channelization code exceeds the threshold.

4.   (Original) The method of claim 1 further comprising using received midambles of received bursts for producing channel estimations of the received bursts wherein the channel estimation of a received burst is used for the midamble detection, the channelization code detection and the data recovery.

5.   (Original) The method of claim 4 wherein channelization code detection comprises match filtering the received burst for each determined channelization code to produce a filtered signal corresponding to each determined channelization code, measuring the power of each filtered signal produced and comparing the power measurements.

6.   (Original) The method of claim 5 wherein the channelization code detection compares the power measurements to a predetermined threshold whereby a determined channelization code is detected if the power measurement of the filtered signal associated with matched filtering for that determined channelization code exceeds the threshold.

7.   (Original) A method of using a user equipment (UE) in a wireless time division duplex communication system using code division multiple access, where the system communicates using communication bursts, each communication burst having a unique channelization code and a midamble code which is uniquely related to the channelization code, each such midamble code being uniquely related to one channelization code, the method comprising:

receiving communication bursts by the UE;

detecting each midamble code in a received communication burst;

determining the channelization codes related to each detected midamble based on a mapping of midamble codes to related channelization codes; and

recovering data from the received communication burst based on in part the determined channelization codes.

8.   (Original) The method of claim 7 further comprising using received midambles of received bursts for producing channel estimations of the received bursts wherein the channel estimation of a received burst is used for the midamble detection and the data recovery.